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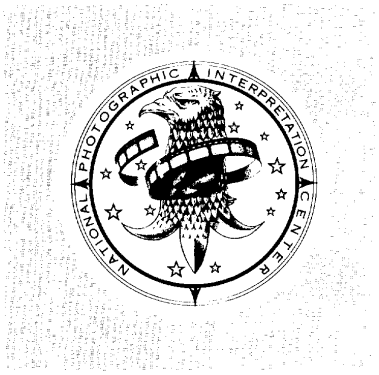

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FORWARD MAINTENANCE FACILITIES FOR Y-CLASS SSBN IN SOVIET NORTHERN AND PACIFIC FLEETS USSR

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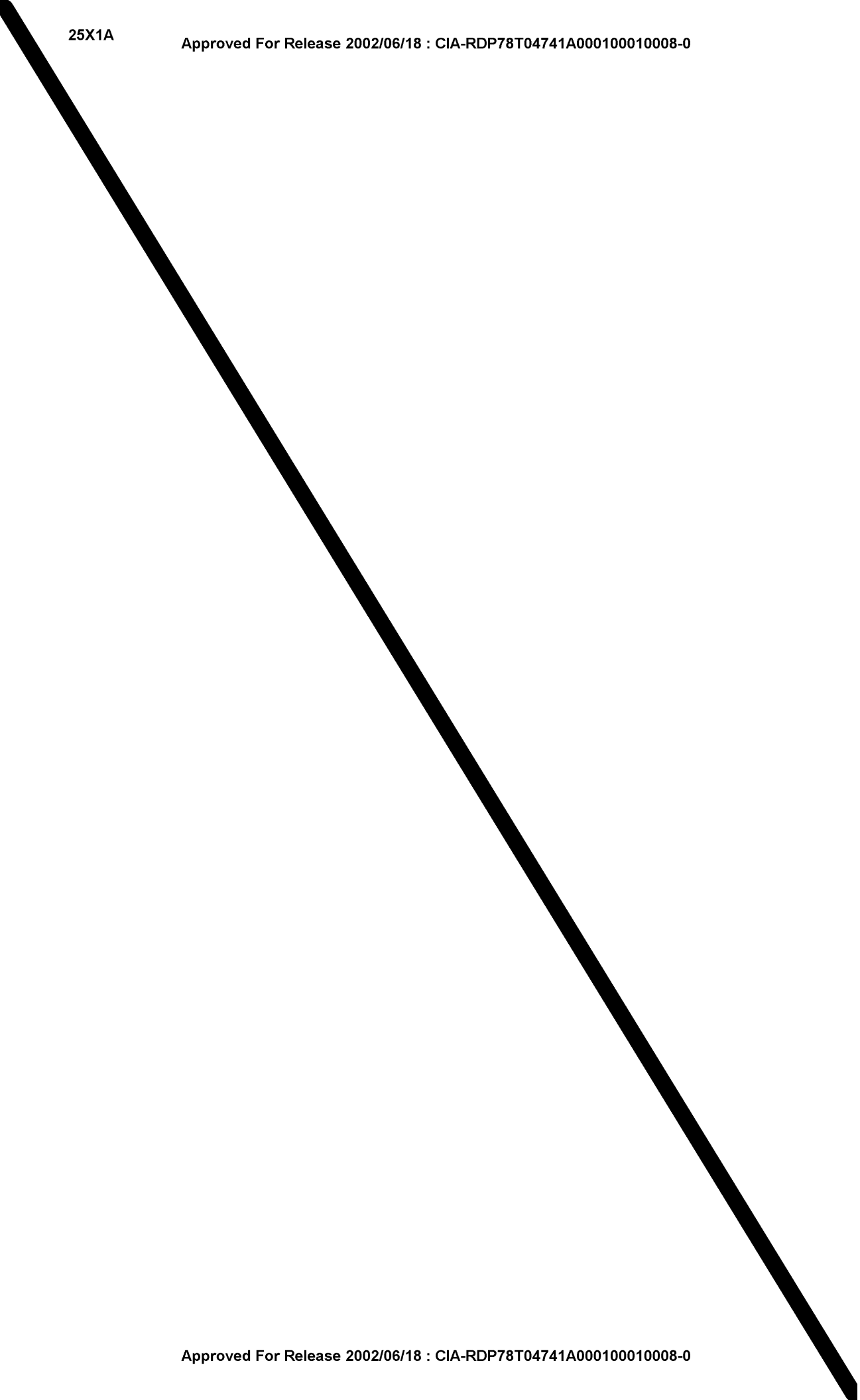

FORWARD MAINTENANCE FACILITIES FOR Y-CLASS SSBN
IN SOVIET NORTHERN AND PACIFIC FLEETS

Analysis of photography of Soviet naval facilities in the two fleet areas where the Y-class nuclear-powered ballistic missile submarine (SSBN) is deployed indicates that at least ten facilities in addition to two construction yards are capable of providing out-of-water maintenance for units of this class (Figure 1).

Location	BE No
Northern Fleet Facilities	
Severodvinsk Shipyard 402*	
Pala Guba Naval Base and Ship Repair Yard	
Chelnopushka Ship Repair Yard	
Rosta Naval Base and Ship Repair Yard Sevmorput	
Iokanga Naval Base and Ship Repair Yard	
Murmansk Ship Repair Yard Glavryb	
Pacific Fleet Facilities	
Komsomolsk Shipyard Amur 199*	
Petrovka Naval Base and Shipyard	
Vladivostok Naval Base and Shipyard 202	
Nakhodka Shipyard	
Sovetskaya Gavan Shipyard 1	
Petropavlovsk Shipyard and Naval Base Seldevaya	
Petropavlovsk Submarine Base and Shipyard Tarya Bay	

*Construction yard for Y-class SSBN

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FIGURE 1. SOVIET NAVAL FACILITIES CAPABLE OF PROVIDING OUT-OF-WATER MAINTENANCE ON Y-CLASS SSBN

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The intent of this report is to focus attention on floating drydocks and graving docks that are estimated to have the capability of providing such service.

Wetdocks and associated repairways at Severodvinsk Shipyard 402 in the Northern Fleet and Petrovka Shipyard in the Pacific Fleet could furnish out-of-water service to Y-class SSBN. In addition, Komsomolsk Shipyard Amur 199 has the large transporter dock routinely used for launching the Y-class SSBN and is fully capable of servicing an operational unit. A second large transporter dock is currently under construction at Komsomolsk.

25X1D The first sighting of a Y-class SSBN out of the water at a forward yard was made in late [redacted] when a unit was in the large floating drydock at Chelnopushka Ship Repair Yard in the Northern Fleet area. Previously, Y-class units had only been observed out of the water at the construction yard at Severodvinsk Shipyard 402.

All available KEYHOLE photography of floating drydocks and graving docks in the Northern and Pacific Fleet areas was examined and the docks measured in order to determine those capable of handling Y-class units. Such facilities were found at at least four forward yards in the Northern Fleet area and at five forward yards in the Pacific Fleet area. An additional yard, in the Northern Fleet area at Murmansk, has two floating drydocks which may be capable of accommodating the Y-class unit, but side wall heights, a critical factor in estimating capacity, could not be determined from available photography.

Floating Drydocks

A number of factors must be considered in determining the capacity of a floating drydock to service a Y-class SSBN. Critical factors which can be determined from overhead photography are floor length, internal width, and wall height. A fourth determinant, lifting capability, cannot be accurately determined from aerial photography.

Table 1. Dimensions of Floating Drydocks Capable of Handling Y-Class SSBN

Location	[redacted]	Y-Class Capable
Northern Fleet		
Severodvinsk		Yes
		Yes
Pala Guba		Marginal
		Yes
Chelnopushka		Yes
Murmansk		Undetermined
		Undetermined
Pacific Fleet		
Vladivostok		
Wharf 8		Yes
Wharf 15		Marginal
Nakhodka		Yes
		Yes
Sovetskaya Gavan		Yes
		Yes
Petropavlovsk (Seldevaya)		Yes
		Marginal
Petropavlovsk (Tarya Bay)		Marginal

25X1D

*Side wall height could not be determined due to occupancy.

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In cases where a floating drydock is observed holding the weight equivalent of a Y-class SSBN (for example, an E-II-class nuclear-powered cruise missile submarine, SSGN, and an H-class SSBN), the wall height assumes primary significance. The draft of a Y-class SSBN is [redacted] and keel blocks for it are approximately [redacted] high; therefore, a floating drydock must have walls [redacted] high in order to be considered marginally capable of receiving a Y-class SSBN. For the purposes of this report, docks with wall heights greater than [redacted] are considered capable of accommodating a Y-class SSBN. All floating drydocks with minimum floor lengths of approximately [redacted] and internal widths of [redacted] are included. Measurements of floating drydocks are summarized in Table 1.*

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25X1D
25X1D

Graving Docks

Factors considered in determining whether or not a graving dock is capable of handling a Y-class SSBN are length, width, and the depth of water over the sill of the dock. Graving docks capable of accommodating vessels 130 meters (425 feet) long and [redacted] wide are included in this study. Measurements of graving docks are given in Table 2.

25X1D

*Measurements are accurate to within the sum of plus or minus 1 meter and 1 percent with a 95-percent confidence level.

Table 2. Dimensions of Graving Docks
Capable of Handling Y-class SSBN

Location	[redacted]	25X1D
Northern Fleet		
Rosta		
Iokanga		
Pacific Fleet		
Vladivostok		
Dock No 1		
Dock No 2		
Dock No 3		

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